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Erratum: density profiles of CDM microhalos and their implications for annihilation boost factors

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The paper "Density profiles of CDM microhalos and their implications for annihilation boost factors" was published in JCAP, Issue 04, 009 (2013) [1]. The simulation parameters of Halos 1–3 in the realisation with cutoff in the initial matter power spectrum are erroneous (see table 1 in [1]). The corrected values for M_{200} and r_{200} (and therefore as a consequence also c_{200} and $c_{\rm NFW}$) are listed in table 1. Furthermore, the changes in c_{200} also cause changes in the $z = 0$ concentration estimates, given in section 3.2. They now read: $c_{200} = 74.6$, 83.8 and 56.6. We want to stress that all our physical conclusions remain unaltered.

Finally, we would like to report a typo in the axes labeling in figure 2 in [1]. The spherically averaged density profiles are plotted at $z = 31$, not at $z = 0$ as indicated in the figure. An updated version is shown in figure 2.

Acknowledgments

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References

[1] D. Anderhalden and J. Diemand, *Density Profiles of CDM Microhalos and their Implications for Annihilation Boost Factors*, *JCAP* **04** (2013) 009 [arXiv:1302.0003] [INSPIRE].

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JCAP08(2013)E02

		M_{200} [10^{-7} $M_\odot$]	r_{200} [10^{-3} pc]	r_s [10^{-3} pc]	$c_{200} = r_{200}/r_s$	$c_{\rm NFW}$	α
Cutoff	Halo 1	0.79	4.26	1.84	2.33	3.89	1.4
	Halo 2	2.08	5.89	2.25	2.62	3.72	1.3
	Halo 3	2.18	5.99	3.38	1.77	2.96	1.4
No Cutoff	Halo 1	1.94	5.78	1.94	2.97	2.97	1
	Halo 2	2.93	6.63	2.22	2.98	2.98	1
	Halo 3	3.81	7.22	3.47	2.09	2.09	1

Table 1. Halo parameters of the *Level 1* simulation at redshift $z = 31$. M_{200} and r_{200} are measured as 200 times the critical density, α is the inner density slope of the measured density profile (see eq. (3.1) in [1]), $\alpha = 1$ corresponds to the NFW profile. Distances are given in physical units.

JCAP08(2013)E02

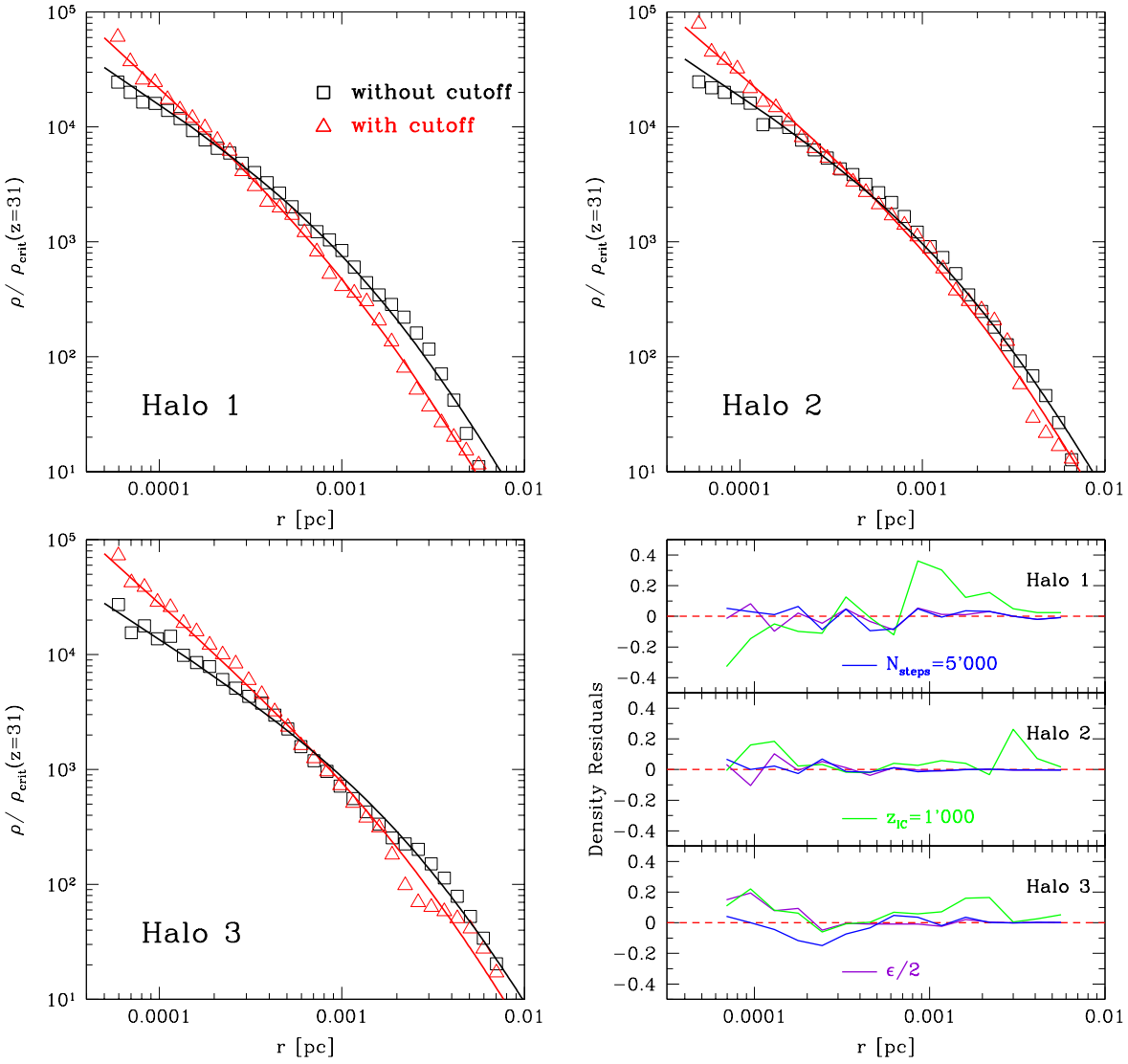

Figure 2. Panels 1–3: spherically averaged density profiles of the three largest collapsed microhalos at $z = 31$, with (red triangles) and without (black squares) cutoff. The red solid lines refer to the best fit according to eq. (3.1) in [1] with $\alpha = 1.4$ (Halo 1 & Halo 3) and $\alpha = 1.3$ (Halo 2), the black solid lines refer to a NFW fit respectively. The radial distance is plotted in physical units, densities in units of $\rho_{\rm crit}$ at $z = 31$. Panel 4: density residuals between the *Level 1* run and three convergence test simulations, each varying one simulation parameter.

JCAP08(2013)E02